

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number  
**WO 2004/093785 A3**

(51) International Patent Classification<sup>7</sup>: **C12N 15/12**,  
15/63, C07H 21/04, C07K 14/47, G01N 33/566, 33/567

(21) International Application Number:  
PCT/US2004/011473

(22) International Filing Date: 14 April 2004 (14.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/463,776 18 April 2003 (18.04.2003) US

(71) Applicants (for all designated States except US): **MERCK & CO., INC.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). **BANYU PHARMACEUTICAL CO., LTD.** [JP/JP]; 2-3, Nihombashi Honcho 2-Chome, Chuo-ku, Tokyo 103-8416 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TAN, Carina, P.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). **HOWARD, Andrew, D.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). **SANO, Hideki** [JP/JP]; 2-3, Nihombashi Honcho 2-Chome, Chuo-ku, Tokyo 103-8416 (JP).

(74) Common Representative: **MERCK & CO., INC.**; 126 East Lincoln Avenue, Rahway, NJ 07065-0907 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
6 May 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **RHESUS MONKEY BOMBESIN RECEPTOR SUBTYPE-3 (BRS-3), NUCLEOTIDES ENCODING SAME, AND USES THEREOF**

(57) Abstract: A rhesus monkey bombesin receptor subtype-3 has been isolated, cloned and sequenced. This receptor is characteristic of the G-protein family of receptors. Isolated rhesus monkey bombesin receptor subtype-3 may be used to screen and identify novel bombesin receptor modulators that may contribute to the regulation of endocrine processes, metabolism, or the cell cycle. Such compounds may be used in the treatment of conditions that result from deregulated expression of bombesin receptor subtype-3.

WO 2004/093785 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/11473

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12N 15/12, 15/63; C07H 21/04; C07K 14/47; G01N 33/566, 33/567

US CL : 435/7.1, 7.2, 69.1, 320.1; 530/350; 536/23.5

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/7.1, 7.2, 69.1, 320.1; 530/350; 536/23.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN, Medline, EAST, USPTO Sequence Database

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,143,521 (LANE et al) 7 November 2000 (07.11.2000), column 10, line 47 to column 11, line 27.	11, 12
---		-----
A		1-10, 13, 14
A	SANO, H. Characterization of the bombesin-like peptide receptor family in primates. July, 2004, Vol 84, pages 139-146, especially page 141.	1-14



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

12 January 2005 (12.01.2005)

Date of mailing of the international search report

04 MAR 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Zachary C Howard

Telephone No. 571-272-2877